

REMARKS

Favorable reconsideration of this application, in view of the present amendments and in light of the following discussion, is respectfully requested.

Claims 1-21 are pending. Claims 1-2, 7-16 and 18-21 are amended. No new matter is introduced.

By way of summary, the Office Action of September 30, 2011 presents the following issues: Claims 1-2, 5, 7-10 and 18-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakakima (U.S. Patent No. 6,005,798) in view of Nickel (U.S. Patent No. 5,835,003); Claims 3-5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakakima in view of Nickel and Chang (U.S. Patent No. 5,294,287); Claims 11-12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakakima in view of Nickel and Wang (U.S. Patent No. 6,713,195); and Claims 14-17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakakima in view of Nickel and Zhu (U.S. Patent No. 5,734,605).

With respect to the rejection of Claims 1-2, 5, 7-10, and 18-21 as being unpatentable over Sakakima in view of Nickel, Claim 1 is amended to recite, *inter alia*, a current injection-type magnetic domain wall-motion device that includes:

A current injection-type magnetic domain wall-motion device comprising:

a first magnetic film directly adjacent to a third magnetic film and a second magnetic film directly adjacent to the third magnetic film, the second magnetic film having a magnetization direction antiparallel to that of the first magnetic film, a first microjunction interface between the first and the third magnetic films, and a second microjunction interface between the third and the second magnetic films, wherein

the magnetization direction of the third magnetic film is controlled in such a manner that a current is applied to pass through the first and second microjunction interfaces, such that a magnetic domain wall present between the first and second magnetic film is moved within the third magnetic film in the same direction as that of the current or in the direction opposite to that of the current by the interaction between the magnetic domain wall and a direct flow of the current.

Thus, Claim 1 is amended to clarify the features of the claimed invention.

Specifically, amended Claim 1 defines that a first magnetic film is directly adjacent to a third magnetic film and a second magnetic film is directly adjacent to the third magnetic film. It is believed that no cited reference discloses or suggests these features.

As noted previously, Sakakima describes a magnetoresistance element (11) having a soft magnetic film (3) adjacent to a non-magnetic film (2) as well as a hard magnetic film (1) adjacent to the non-magnetic film (2).¹ Sakakima illustrates that the non-magnetic film (2) is sandwiched between the soft magnetic film (3) and the hard magnetic film (1).²

The Advisory Action of February 17, 2012 appears to identify the combination of the non-magnetic film (2) with either the soft magnetic film (3) or the hard magnetic film (1) as one of the claimed magnetic bodies.³ Specifically, the Advisory Action asserts that this combination of materials is proper by taking a broad construction of the term “body” to mean a material that could include both magnetic and non-magnetic materials.

However, Claim 1 is amended hereby to more precisely recite the claimed features. Specifically, Claim 1 defines first, second and third magnetic *films*. In other words, Claim 1 defines that each of the material includes only one magnetic film.

In contrast, Sakakima does not describe that the soft magnetic film (3) and the hard magnetic film (1) are adjacent to each other. Instead, Sakakima clearly illustrates that the non-magnetic film is disposed between these two magnetic films.⁴ Conversely, amended Claim 1 recites that a first magnetic film is directly adjacent to a third magnetic film and a second magnetic film is directly adjacent to the third magnetic film. Therefore, Sakakima

¹ Sakakima at column 11, line 58 – column 12, line 19; see also Figure 1.

² *Id.*

³ See the Advisory Action of February 17, 2012 at page 2.

⁴ See, for example, Figure 1 of Sakakima.


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fails to disclose the claimed structure of the first, second and third magnetic films, and as discussed in the previous response, Nickel does not cure these deficiencies. As such, no combination of Sakakima and Nickel describes every feature recited in amended Claim 1, and amended Claim 1 is believed to be in condition for allowance, together with any claim depending therefrom. Accordingly, it is respectfully requested that the rejection of Claims 1-2, 5, 7-10 and 18-21 under 35 U.S.C. § 103(a) be withdrawn.

For the reasons discussed above, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance for Claims 1-21 is earnestly solicited.

Respectfully submitted,

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